



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Regional Office, 627 Main Street, Worcester, MA 01608

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

IAN A. BOWLES
Secretary

LAURIE BURT
Commissioner

Daniel Noberini, Associate Director, EH&S
Bristol Myers Squibb Co.
38 Jackson Road
Devens, MA 01434

RE: Devens
Central Region
BWP IW 39
Final Permit for Industrial Sewer User
M.G.L. c. 21, §§ 26-53, and
314 CMR 7.00 and 2.06
Transmittal No. W144245

Dear Mr. Noberini:

Issuance Date: October 1, 2007

Enclosed is your industrial wastewater sewer discharge permit BWP IW 39, issued pursuant to the Massachusetts Clean Water Act (the "State Act"), M.G.L. c. 21, §§ 26-53, as amended, and the regulations 314 CMR 7.00 and 314 CMR 2.00 promulgated thereunder.

MassDEP received no comments objecting to the issuance or terms of the permit during the public comment period ending September 15, 2007. Therefore, in accordance with 314 CMR 2.08, the permit is effective upon the issuance date. Pursuant to 314 CMR 7.10(3), the permit shall remain in effect for a period of 5 years. Please carefully review the enclosed permit, paying particular attention to the Special Conditions in the Attachment.

This Decision is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within thirty (30) days of the date of issuance of this Decision. Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Decision is not consistent with applicable laws and regulations. The hearing request along with a valid check payable to Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to: Commonwealth of Massachusetts, MassDEP of Environmental Protection, P.O. Box 4062, Boston, MA 02211

The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority. MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator at 617-556-1057.

<http://www.mass.gov/dep> • Phone (508) 792-7650 • Fax (508) 792-7621 • TDD # (508) 767-2788

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Bristol Myers Squibb Company
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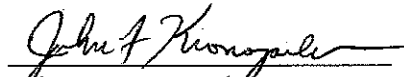
Please be advised that pursuant to the provisions of the Department's regulations at 310 CMR 4.03(2), effective July 13, 2007, an annual fee, based on the Department's fiscal year, will be billed to your facility to cover the cost of compliance activities performed by the Department, including report reviews, inspections and coordination activities with the local municipal wastewater treatment facility into whose system your company discharges its pretreated industrial wastewater. At the current time that annual fee is one hundred seventy-five dollars (\$175.00).

Should you have any questions concerning this matter, please do not hesitate to contact Giles Steele-Perkins at (508) 767-2767.

Very truly yours,



Giles Steele-Perkins
Environmental Analyst
Bureau of Waste Prevention



John F. Kronopolus
Section Chief
Bureau of Waste Prevention

enclosures

cc: Richard Montuori, MassDevelopment/Devens
ecc: John Reinhardt, Mingyuan Pan, Kellie Ingram, Anthony Abruzese, Thomas Higgins,
MassDEP, Boston



Massachusetts Department of Environmental Protection
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DEP Use Only

Date Received

Important Instructions for Completing This Form

The questions on this form apply to existing and new facilities discharging industrial wastewater to sewers. If you are completing this form for an existing facility, answer the questions as they apply to its current status. If you are completing this form for a new facility, your answers will reflect your commitment to comply with the requirements as set forth in each question.

Existing facilities are defined as facilities in existence as of July 12, 2007. New facilities are defined as facilities constructed after July 12, 2007.

Answer all questions, except those that you are directed to skip. Please DO NOT answer questions that you are directed to skip

Permit Category (Select One)

- ☐ BWP IW 38: Industrial Sewer User in IPP POTW discharging more than 50,000 GPD
- ☒ BWP IW 39: Industrial Sewer User in Non-IPP POTW discharging more than 25,000 GPD

A. Facility Information

Important:
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Bristol Myers Squibb Co.

1a. Facility Name

38 Jackson Rd

1b. Facility Address 1

1c. Facility Address 2

Devens

1d. City

978-487-2310

1g. Phone Number

13-6121983

1i. Federal Employer Tax Identification Number (FEIN or TIN)

MA

1e. State

01464

1f. Zip Code

978-436-7908

1h. Fax Number

Mailing Address: ☒ Check here if same as Facility Address and skip to Contact Information.

2a. Mailing Address: Street or P.O. Box

2b. Mailing Address 2

2c. City

2d. State

2e. Zip Code

Contact Information:

Daniel Noberini

3a. Contact Person Name

Associate Director, EHS

3b. Contact Person Title

978-487-2310

3c. Phone Number

3d. Extension

Daniel.Noberini@bms.com

3e. Email Address



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B. Industrial Wastewater Information

1. Project Description (Check All That Apply)

- ☒ 1a. New Construction ☐ 1b. Permit Renewal
☐ 1c. Increasing Flow From Existing Connection ☒ 1d. New or Modified Industrial Wastewater Pretreatment System (IWPS)
☐ 1e. Existing Unpermitted Connection (Constructed Before 7/12/07)

2. List, in descending order of significance, the Standard Industrial Classification (SIC) codes, which best describe the facility producing the discharge in terms of the principal products or services provided. Also, specify each classification title. (See Appendix B in the Instructions)

2836	Biological Products, Except Diagnostic Substances
2a. SIC Code	
2b. SIC Code	Description
2c. SIC Code	Description
2d. SIC Code	Description

3. List all sewer connection(s) and their maximum daily flow(s) in gallons per day (GPD) from your facility going to the Publicly Owned Treatment Works (POTW):

	1 3a. Connection #	2 3b. Connection #	3c. Connection #	3d. Total Flow, All Connections
SANITARY	4375 GPD	4375 GPD	GPD	8750 GPD
INDUSTRIAL	0 GPD	391250 GPD	GPD	391250 GPD
TOTAL	4375 GPD	395625 GPD	GPD	400000 GPD

4. Are you in compliance with the Massachusetts Historical Commission requirements?

☒ Yes

☐ No*

*If No, You Must Comply With Massachusetts Historical Commission Requirements **BEFORE** You Can Submit This Application.

5. Are you in compliance with Massachusetts Environmental Policy Act (MEPA) requirements?

☒ Yes

☐ No*

*If No, You Must Comply With MEPA Requirements **BEFORE** You Can Submit This Application.



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B. Industrial Wastewater Information (continued)

6. Check all pollutants that are present in your industrial wastewater **before** pretreatment, or if not treated, before discharge:

☒ 6a. Metals, Asbestos, Cyanide, Phenols

If Metals, Asbestos, Cyanide, or Phenols are present, provide concentrations in milligrams per liter (mg/L):

1. Antimony (total) (Sb)	<0.060 mg/L	9. Nickel (total) (Ni)	<0.050 mg/L
2. Arsenic (total) (As)	<0.0050 mg/L	10. Selenium (total) (Se)	<0.0050 mg/L
3. Beryllium (total) (Be)	<0.010 mg/L	11. Silver (total) (Ag)	<0.010 mg/L
4. Cadmium (total) (Cd)	<0.010 mg/L	12. Thallium (total) (Tl)	0 mg/L
5. Chromium (hexavalent)	0 mg/L	13. Zinc (total) (Zn)	0.036 mg/L
6. Chrome (total) (Cr)	<0.010 mg/L	14. Asbestos	0 mg/L
7. Copper (total) (Cu)	<0.010 mg/L	15. Cyanide (total) (CN)	<0.010 mg/L
8. Lead (total) (Pb)	<0.0050 mg/L	16. Phenols (total)	0.51 mg/L

☐ 6b. Toxic Pollutants (See Section 17B in the Instructions.)

If Toxic Pollutants are present, provide the total Toxic Pollutants concentration in micrograms per liter (ug/L):

6b1. Total Toxic Pollutants Concentration (ug/L)

NOTE: Use the **Toxic Pollutants Form** to list individual toxic chemicals and their concentrations.

☐ 6c. Total Petroleum Hydrocarbons (TPH) > 15 mg/L

☒ 6d. pH <5 and >10 Standard Units (S.U)

☐ 6e. Other*

*If Other Pollutants are present, describe them:



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B. Industrial Wastewater Information (continued)

7. Is Mercury (Hg) present in your industrial wastewater **before** pretreatment, or if not treated, before discharge?

☐ Yes

☒ No*

*If No, skip to Question 8.

7a. If Yes, have you identified all possible mercury sources and taken all reasonable steps to eliminate the mercury?

☐ Yes*

☐ No

*If Yes, skip to Question 8.

7b. If No, explain why.

NOTE: As of May 1, 2009, all facilities must meet a discharge limit of 1 part per billion (ppb) for Mercury.

8. What is the name of the Publicly Owned Treatment Works (POTW) that receives your wastewater? (See Appendix C in the Instructions.)

Devens POTW

Name of POTW

9. Do you have a current sewer connection discharge permit or a current written approval issued by your local POTW? (See Section 17B in the Instructions.)

☒ Yes

☐ No*

*If No, you must obtain either a permit or written approval from your local POTW to discharge **BEFORE** you can submit this application.

If you have a permit, provide the following information, then skip to Question 10.

9a. Permit Number

9b. Permit Expiration Date

If you have a written approval, provide the following information:

July 17, 2007

9c. Date of Approval Letter

Richard Montuori

9d. Name of Person Who Signed the Letter

10. Are your POTW and local Sewer Authority the same entity? (See Section 17B in the Instructions.)

☒ Yes*

☐ No

*If Yes, skip to Question 12.



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B. Industrial Wastewater Information (continued)

11. Do you have a current sewer connection discharge permit or a current written approval issued by your local Sewer Authority? (See Section 17B in the Instructions.)

☐ Yes

☐ No*

If No, you must obtain either a permit or written approval from your local Sewer Authority to discharge **BEFORE** you can submit this application.

If you have a permit, provide the following information, then skip to Question 12.

11a. Permit Number

11b. Permit Expiration Date

If you have a written approval, provide the following information:

11c. Date of Approval Letter

11d. Name of Person Who Signed the Letter

12. Is your facility currently classified as a Categorical Industrial User (CIU) pursuant to Federal Regulations? (See Appendix D in the Instructions.)

☒ Yes

☐ No*

*If No, skip to Section C.

12a. List all the Categorical Pretreatment Standards applicable to your facility.

40 CFR 439

12a1. Part Number

Pharmaceutical Manufacturing Point Source
Point Source Category

12a2. Part Number

Point Source Category

12a3. Part Number

Point Source Category

12a4. Part Number

Point Source Category

C. Industrial Wastewater Pretreatment System

1. Do you have an on-site industrial wastewater pretreatment system (IWPS) to treat your industrial wastewater?

☒ Yes

☐ No*

*If No, skip to Section D.

1a. How many IWPSs do you have?

1

Number

NOTE: If you have more than one IWPS, please use an **Additional IWPS Form** for each additional IWPS.

1b. Provide a unique identifier (i.e. name) for this IWPS:

WWpTP1

Identifier/Name



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C. Industrial Wastewater Pretreatment System (continued)

1c. What is the Total Design Capacity of this IWPS?

530000

Gallons Per Day

1d. What is the Average Daily Flow of this IPWS? (Estimate if this is a new facility.)

263175

Gallons Per Day

1e. What is the Maximum Daily Flow of this IWPS? (Estimate if this is a new facility.)

391250

Gallons Per Day

2. Is your IWPS designed and constructed to meet all local discharge standards and the applicable Categorical Industrial User (CIU) standards in 40 CFR Chapter I, Subchapter N?

☒ Yes

☐ No*

*If No, you must take immediate steps to address the non-compliance **BEFORE** you can submit this application.

3. Does this IWPS treat hazardous industrial wastewater or hazardous industrial wastewater sludge as defined in 314 CMR 7.02?

☐ Yes

☒ No*

*If No, skip to Question 12. NOTE: If Yes, your facility is considered a RCRA facility and your public comment period is 45 days.

3a. Are you treating concentrated chemical baths, e.g. spent chemical baths, or off-specification products?

☐ Yes

☒ No*

*If No, skip to Question 4.

3b. If Yes, describe the concentrated chemical baths you are treating.

4. Does your IWPS meet the requirements of "treatment which is an integral part of the manufacturing process" as defined in 310 CMR 30.010?

☐ Yes*

☒ No

*If Yes, skip to Question 7.

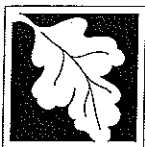
5. Do you store hazardous industrial wastewater or hazardous industrial wastewater sludge that is generated in your IWPS or in your production processes, in tanks or containers?

Note: If you use in-ground tanks for storage of hazardous industrial wastewater or sludge and your IWPS is located in a Drinking Water Zone (see Section 17C of the Instructions; reference language in 310 CMR 30.605), you are not eligible to apply for a BWP IW 38 or BWP IW 39 permit. You must use form BWP IW 40 instead.

☐ Yes

☒ No*

*If No, skip to Question 7.



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C. Industrial Wastewater Pretreatment System (continued)

6. Are you in compliance with the requirements for tanks and containers in 310 CMR 30.342 and 343? (See Section 17C in the Instructions)

☐ Yes

☐ No*

*If No, you must take immediate steps to address the non-compliance **BEFORE** you can submit this application.

7. Do you have a U.S. Environmental Protection Agency (EPA) hazardous waste generator identification number?

☐ Yes

☒ No*

*If No, skip to Question 7b.

7a. What is your EPA identification number?

Skip to Question 8.

EPA ID #

7b. Explain why you do not have an EPA identification number.

New facility / not yet applied for.

8. Do you have a visible sign in place that warns against unauthorized entry into the IWPS area?

☒ Yes*

☐ No

*If Yes, skip to Question 9.

8a. Explain why you do not have a visible sign in place.

New facility; requirement will be incorporated into final detailed design

9. Do you have the required spill containment for the IWPS? (See Section 17C in the Instructions.)

☒ Yes*

☐ No

*If Yes, skip to Question 10.

9a. Explain why you do not have the required spill containment.

10. Is your IWPS located on land subject to flooding from a 100-year storm? (See Section 17C in the Instructions.)

☐ Yes

☒ No*

*If No, skip to Question 12.



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C. Industrial Wastewater Pretreatment System (continued)

11. Are you in compliance with the flood-proofing provisions in 310 CMR 30.701(2)? (See Section 17C in the Instructions.)

☐ Yes

☐ No*

*If Yes, skip to Question 12.

11a. Explain why you are not in compliance with the flood-proofing provisions in 310 CMR 30.701(2).

12. What type of IWPS do you have? (Check all that apply.)

☐ Fully Automated Industrial Wastewater Pretreatment System (FAIWPS)

☒ Continuous Discharge IWPS

☐ Batch IWPS

13. Is the IWPS exempt from classification? (See Section 17C in the Instructions.)

☐ Yes*

☒ No

*If Yes, skip to Question 14.

13a. What is the classification of this IWPS? (See 257 CMR 2.13: Classification of Wastewater Treatment Facilities.)

☐ Class 1I

☐ Class 2I

☐ Class 3I

☐ Class 4I

☒ Class 5 or 6C

☐ Class 1M

☐ Class 2M

☐ Class 3M

☐ Class 4M

13b. How was the IWPS' classification determined?

☐ In accordance with the requirements in 314 CMR 7.05(2)(g) 4. c. or d.

☒ By the Board of Certification of Operators of Wastewater Treatment Facilities

☐ Both

14. Is the IWPS staffed in accordance with the requirements of 314 CMR 7.05(2)(g) 5? (See Section 17C in the Instructions.)

☒ Yes*

☐ No

*If Yes, skip to Question 15.



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C. Industrial Wastewater Pretreatment System (continued)

14a. Explain why the IWPS is not staffed in accordance with 314 CMR 7.05(2)(g) 5.

Staffing plan to be developed pending classification per 257 CMR 2.13. Preliminary discussions indicate that the proposed system will be rated a Grade 6C.

15. Is this your first permit application under Permit Category BWP IW 38 or BWP IW 39 for this IWPS? Or, is this application a request for modification of this IWPS that currently has a BWP IW 38 or BWP IW 39 permit?

☒ Yes*

☐ No

*If Yes, you need to submit as an attachment the process flow diagram and description of the principal treatment processes for your IWPS. Otherwise, skip to Question 17.

16. How many attachments are included with this application in response to Question 15?

5

Number of Attachments

17. Have your sewer connection and IWPS been designed and constructed in compliance with the design and construction standards as set forth in 314 CMR 7.05(2)(g)3?

☒ Yes

☐ No*

*If No, skip to Question 17b.

17a. What is the Massachusetts Registered Professional Engineer (MAPE) signature date on the engineering plans?

July 17, 2007

Skip to Question 18.

Date

17b. Explain why your sewer connection and IWPS have not been designed and constructed in compliance with the design and construction standards as set forth in 314 CMR 7.05(2)(g)3.

18. Provide the following information about the Massachusetts Registered Professional Engineer (MAPE) who reviewed, stamped, and signed your engineering plans:

Peter E. Grevelding

18a. Name

42680

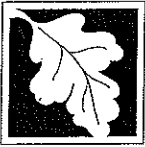
18c. Mass. P.E. License Number

315-437-6100

18b. Phone Number

Professional Civil Engineer

18d. Mass. P.E. Specialty



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19. Do you have an IWPS operation and maintenance manual that complies with the procedures and other requirements in 314 CMR 7.05(2)(g)6.?

☒ Yes*

☐ No

*If Yes, skip to Question 20.

19a. Explain why you do not have the required IWPS operation and maintenance manual.

20. Are you keeping your IWPS operation and maintenance manual current?

☒ Yes

☐ No

21. Are you implementing your IWPS operation and maintenance manual?

☒ Yes

☐ No

D. Monitoring, Reporting & Recordkeeping

1. Are you keeping your currently effective sewer discharge permit(s), IWPS plan(s), and current operation and maintenance manual(s) (as applicable) on-site at all times?

☒ Yes*

☐ No

* If Yes, skip to Question 2.

1a. Explain why you are not keeping these records on-site at all times.

2. Are you keeping all your required records including your wastewater monitoring and analyses records, operation and maintenance records and logs, bills of lading, summary reports of all incidents requiring implementation of the safety plan, and hazardous waste manifests (as applicable) on-site for at least three years?

☒ Yes*

☐ No

* If Yes, skip to Question 3.

2a. Explain why you are not keeping these records on-site for at least three years.



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D. Monitoring, Reporting & Recordkeeping (continued)

3. [Reserved for Toxics Reporting]

Additional reporting requirements will be added to this section in the future.

E. General & Specific Prohibitions

1. After carefully reviewing all of the general and specific prohibitions listed below, are you in compliance with these General and Specific Prohibitions?

☒ Yes*

☐ No

*If Yes, read Section F and then complete Section G.

1a. Identify all the prohibitions you are not in compliance with and explain why. Attach an additional sheet of paper to this form, if necessary.

1. General Prohibitions. The permittee shall not:

a. Discharge, or cause to be discharged to a POTW, any substances, materials, or wastewater that may:

- i. harm the sewers, POTW wastewater treatment process or equipment;
- ii. have an adverse impact on the receiving waters; or
- iii. otherwise create a nuisance or endanger public health, safety, or the environment.

b. Introduce pollutants into POTWs that pass through the POTW or interfere with its operation or performance.

c. Discharge wastewater or allow discharge of wastewater through any sewer connection that would result in a hazard to the public health or safety.

d. Discharge bypass wastewater or allow discharge of bypass wastewater through any sewer connection. If bypassing due to an emergency condition occurs, the Department and POTW shall be notified in accordance with 314 CMR 7.04(3). Such notification or its acknowledgement shall not be construed as permission by the Department or POTW to discharge bypass wastewater.

e. Discharge hazardous waste or allow the discharge of hazardous waste through any sewer connection.

2. Specific Prohibitions. The permittee shall not introduce into a POTW or its wastewater collection system the following:

a. Pollutants which may create a fire, explosion, or other hazard in the POTW or its wastewater collection system.

b. Pollutants which may cause corrosive structural damage to the POTW or its wastewater collection system. In no case shall discharges with a pH lower than 5.0 Standard Unit (S.U) or more than 10.0 S.U. be allowed, unless the local limit allows such discharges.

c. Solid or viscous pollutants in amounts which may cause obstruction to the flow in the POTW or its wastewater collection system or may result in interference.

d. Any pollutant, including oxygen-demanding pollutants, discharged at a flow rate or pollutant concentration that will cause interference with the POTW or its wastewater collection system.

e. Heat in amounts which may inhibit biological activity in the POTW, resulting in interference. In no case shall heat in such quantities that the temperature at the POTW treatment plant exceeds 40° C (104° F) be discharged, unless the Department, upon request of the POTW, approves alternate temperature limits.



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F. Additional Conditions

- a. All discharges shall be in compliance with the terms and conditions of this permit. The discharge of any wastewater at a level in excess of that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and/or criminal penalties as provided for in M.G.L. c.21, Section 42.
- b. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
 - i. Violation of any terms or conditions of the permit;
 - ii. Obtaining a permit by misrepresentation or failure to disclose fully all relevant facts; or
 - iii. A change in conditions or the existence of a condition, which requires either a temporary or permanent reduction, or elimination of the authorized discharge.
- c. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; nor does it authorize or relieve the permittee of any liability for any injury to private property or any invasion of personal rights; nor any infringement of Federal, State, or local laws or regulations; nor does it waive the necessity of obtaining any local assent required by law for the discharge authorized herein by the Department.
- d. The provisions of this permit are severable, and the invalidity of any condition or subdivision thereof shall not make void any other condition or subdivision thereof.
- e. All information and data provided by an applicant or a permittee identifying the nature and frequency of a discharge shall be available to the public without restriction. All other information (other than effluent data) which may be submitted by an applicant in connection with a permit application shall also be available to the public unless the applicant or permittee is able to demonstrate that the disclosure of such information or particular part thereof to the general public would divulge methods or processes entitled to protection as trade secrets in accordance with the provisions of M.G.L. c.21, Section.27(7). Where the applicant or permittee is able to so demonstrate, the Department shall treat the information or the particular part (other than effluent data) as confidential and not release it to any unauthorized person. Such information may be divulged to other officers, employees, or authorized representatives of the Commonwealth or the United States Government concerned with the protection of public water or water supplies.
- f. Transfer of Permits. Any sewer system connection permit authorizing an industrial discharge to a sewer system is only valid for the person to whom it is issued, unless prior to transfer:
 - i. The current permittee notifies the Department in writing at least 30 days in advance of the proposed transfer date; and
 - ii. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibilities, and liability to the new permittee.
- g. This permit authorizing the discharge expires five (5) years from the date of issuance. The permittee shall apply for a renewal of this permit at least ninety (90) days prior to the expiration date, in accordance with 314 CMR 7.09(3)(b) for continued lawful discharges beyond the expiration date.
- h. All solids, sludge, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be collected, treated, and disposed of in accordance with applicable provisions in the following:
 - i. Hazardous waste regulations (310 CMR 30.000).
 - ii. Solid waste regulations (310 CMR 19.00).
 - iii. Sewer discharge regulations (314 CMR 7.00).
 - iv. Any other applicable federal, state and local laws.
- i. All samples shall be analyzed by a Massachusetts Certified Laboratory.
- j. The permittee shall provide the Department, and the Department's employees, authorized representatives and contractors, access at to the facility at all reasonable times, including during wastewater treatment system operation or wastewater discharge, for purposes of conducting activities related to oversight of this permit, including inspections to monitor compliance with the terms herein. The permittee shall allow the Department to obtain information related to compliance with the requirements of this permit. Notwithstanding any provision of this permit, the Department retains all of its access authorities and rights under applicable state and federal law.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Industrial Wastewater
BWP IW 38 & BWP IW 39
Permit for Industrial Sewer User

W144245

Transmittal Number

Facility ID# (if known)

G. Certification Statement

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true accurate, and complete. I certify that this facility is in compliance with all conditions and requirements of this permit, and all applicable statutes and regulations. I further certify that systems to maintain compliance are in place at the facility or unit and will be maintained even if processes or operating procedures are changed. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations."

(I will be responsible for publication of public notice of the applicable permit proceedings identified under 314 CMR 2.06(1)(a) through (d).)

Paul McKenzie

Printed Name of Applicant

Vice President & General Manager

Title

signature on file

Signature of Applicant

07/18/07

Date Signed

Daniel Noberini

Name of Preparer

Associate Director, EHS

Title

978-487-2310

Phone Number

MassDEP Use Only

Special Conditions:

See Attachment

This document is a permit issued pursuant to Massachusetts General Laws, Chapter 21, Section 43 and Massachusetts regulations at 314 CMR 7.00. The permittee shall comply with all of the provisions contained in the permit application which are hereby incorporated and made part of this permit.

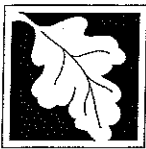
Date Issued

Permit Effective Date

Name of Regional BWP Section Chief

Permit Expiration Date

Signature



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Industrial Wastewater

BWP IW 38 & BWP IW 39

Permit for Industrial Sewer User

W144245

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ATTACHMENT

Special Conditions:

1. The permittee shall maintain compliance with MassDevelopment's sewer use requirements and the terms and conditions of any applicable industrial wastewater permits issued by MassDevelopment.
2. The permittee shall comply with and notify MassDEP of the Effluent Guidelines and Standards at 40 CFR Part 439 – Pharmaceutical Manufacturing Point Source Category if and when they become applicable to the facility.
3. The documents and materials attached to the permit application are incorporated as part of the permit.



A Community of MassDevelopment

Devens

33 Andrews Parkway
Devens, Massachusetts
01434

Tel: 978-784-2900

Fax: 978-772-8879

www.devenscommunity.com

Main Office:

160 Federal Street
Boston, Massachusetts
02110

Tel: 617-330-2000

Fax: 617-330-2001

www.massdevelopment.com

July 17, 2007

Mr. Daniel Noberini
Bristol-Myers Squibb
38 Jackson Road
Devens, MA 01434

RE: Approval Letter for DEP Industrial Wastewater Permit Application

Dear Mr. Noberini:

This letter of approval is being forwarded to meet the requirement of MA DEP's new industrial wastewater permit application that the applicant have a permit or letter of approval from the Local Authority and POTW to accept the proposed industrial wastewater. Based on numerous meetings with Bristol-Myers Squibb (BMS), MassDevelopment, as both the Local Authority and owner of the POTW, is fully aware of the quantity and quality of industrial wastewater that BMS intends to discharge to the Devens POTW from the BMS wastewater pretreatment facility.

The Devens POTW, currently permitted to discharge 3 mgd to groundwater, is being expanded to 4.65 mgd to meet the needs of BMS and other potential future Devens customers. Given that the Devens POTW is currently discharging about 1 mgd, and given the present plans for completing the Devens' build out, the Devens treatment facility will have sufficient capacity to accept the anticipated wastewater flow of 1.2 mgd when the BMS facility is fully built out.

If you have any questions, please call me at (978) 784-2929 or Mark Cohen at (978) 784-2911.

Sincerely,

Richard Montuori
Executive VP, Devens Operations

DEVAL PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RANCH C. KIMBALL
Chairman

ROBERT L. CULVER
President/CEO

BMS Devens Wastewater Pretreatment Plant System Description

1. Background

Bristol-Myers Squibb (BMS) is proposing to construct a new Large Scale Cell Culture (LSCC) Facility in Devens, MA. The LSCC will be constructed on a previously developed parcel formerly occupied by the Ft. Devens Military base. Major elements of the LSCC facility will include:

- Administrative Office/Laboratory/Cafeteria Building
- LSCC Building
- Central Utilities Building (CUB)
- Materials Storage & Warehouse Buildings
- **Wastewater Pretreatment Plant (WWpTP)**

The facility has been master planned to support phased expansion of the site through the construction of additional production and related support facilities.

2. Wastewater Flows

Process and Utility wastewaters will be conveyed to the wastewater pretreatment plant (WWpTP) to treat the wastestreams prior to discharge to the Devens POTW. The WWpTP will have maximum designed operating flow capacity of 530,000 gallons per day which comprises a redundant system with a capacity of 265,000 gallon for each component. The design will meet the Mass Development (Mass Dev) Finance Agency Sewer Use Rules & Regulations which govern industrial discharges to the Devens Sewerage Service Area.

Sanitary wastewaters generated at the administrative offices, laboratory, manufacturing and cafeteria building will be collected at the site and discharged directly to the Devens Publicly Owned Treatment Works (POTW).

3. Wastewater Flows Characteristics

Wastewater generated from production unit operation (i.e. Process wastewater) will consist of:

- Cell production (bioreactors)
- Spent buffer solutions from purification
- Waste clean-in-place (CIP) solutions
- Used water-for-injection (WFI) from line and equipment flushing

Utility wastewater from the CUB will consist of:

- Boiler blowdown
- Cooling tower blowdown
- Miscellaneous wastewaters

4. Process Description by Unit Operations

The following is a functional description of each of the major process unit operations identified in the Process Flow Diagram (148-980-PFD-001) of the WWpTP:

- Equalization (EQ) Wastewater Cooling
- Equalization
- Aerobic Sequence Batch Reactors (SBR's)
- Aeration blowers
- Post SBR equalization
- Sludge Holding
- Centrifuge
- Odor Control
- Chemical Distribution

4.1. EQ Wastewater Cooling

Two EQ water-cooling towers will be located within the containment berm adjacent to the EQ tanks. The cooling towers are sized to reduce the EQ tank water temperature to below a specified temperature within the EQ tank prior to entering the SBR for treatment. The cooling towers are equipped with a high volume forced draft fan, recirculation pump and distribution internals, sump heater for winter conditions, and corresponding instrumentation and controls for temperature, level and flow control and conductivity.

The EQ tank contents will be recirculated from the tank, through the cooling tower unit operations and discharge back to the EQ tank. Cooling tower influent and effluent piping is configured for operational flexibility providing the ability to recirculate either EQ No. 1 or EQ No. 2 contents to either EQ tank. The cooling tower blowdown rate will be established based on conductivity.

4.2. Equalization (EQ) Tanks

There are two 200,000-gallons wastewater equalization (EQ) tanks - one online and one standby. The EQ tanks receive flow from both the process area and CUB and can automatically transfer operations from EQ No. 1 to EQ No. 2, if required. The tanks are mechanically agitated to provide for composition and hydraulic equalization, and pH adjustment of the wastewaters. Each EQ tank is equipped with redundant level monitoring (radar and high-high level sensor) and redundant pH monitoring. Wastewater pH is adjusted by control of caustic or hydrochloric acid metering pumps. Additional overflow protection is provided with a common pipeline through the EQ tank common wall (just above maximum water level). This pipe, equipped with a manual butterfly valve, would allow high water levels to spill into the adjacent EQ tank.

Provisions are made for temperature monitoring of the wastewater in the EQ tanks. Control of wastewater temperature in the EQ tanks will be via an external cooling tower recirculation loop to maintain the EQ contents at a constant temperature prior to entering the SBRs.

The basis for the EQ tanks sizing is to dampen COD mass load fluctuations to the SBRs. Overfill protection is provided and bypass capability is included for sending flow around the EQ tanks directly to the SBRs. Two EQ tank pumps are provided, and each sized for flows from 250 gpm to 400 gpm each. The EQ tanks are covered and the headspaces are vented to the Odor Control Scrubber.

4.3. Sequencing Batch Reactors (SBRs)

Wastewater from the EQ tanks is pumped alternating into one of two nominal 265,000-gallon SBRs for biological treatment. The SBR cycle includes five main steps: fill/aeration, reacts, settle (clarification), decant, and sludge wasting. Combination steps such as mix-fill or react-fill may also be included.

The SBR feed pumps are common for both SBRs. The SBRs are designed to operate at minimum solids retention time (SRT) of 10 days and are sized to operate with mixed liquor suspended solids (MLSS) concentration of 4,500 mg TSS/L or lower at the minimum water depth (post decanting).

4.4. Post-SBR EQ Tank

The treated effluent from the SBRs is gravity drained to a 120,000-gallon capacity post-SBR EQ tank. Gravity draining, at a rate of 1,000 gpm, allows transfer of up to 60,000 gallons of treated effluent over one hour. The rectangular concrete tank is covered and vented to the Odor Control Scrubber. As per the New England Interstate Water Pollution Control Commission (NEIWPCC), the post-SBR EQ tank is considered to be a key component of the biological system and is sized to meet future requirements. The post SBR EQ tank includes level monitoring and alarm, and redundant pH monitoring. If sustained off spec pH is observed, then the post-SBR EQ tank contents will be diverted to the operating SBR.

Effluent flow is controlled via an automated valve on the post-SBR EQ tank's discharge. This allows the effluent to be a monitored discharge to the Devens POTW for treatment. An on-site control manhole will be used for flow and temperature monitoring, and redundant pH monitoring with deviation alarms. Above the control manhole will be a compliance monitoring station that will house a refrigerated composite sampler and local alarms.

A blower is provided to supply air for mixing in the post-SBR EQ tank. Mixing requirement is based on 25 scfm/1000 cf of tank volume in accordance with the NEIWPCC design guidance manual. The post-SBR headspace is vented to the Odor Control Scrubber.

Provisions are included for bypassing the post-SBR EQ tank to allow for maintenance of the tank. Flexibility will be included to convey to the EQ tanks for additional treatment.

4.5. Sludge Holding Tank (SHT)

A covered 60,000-gallon nominal capacity SHT will receive wastewater sludge from the SBRs. The tank will be used to store the biosolids and feed the Centrifuge. Sizing is based on a 5 days/week dewatering operation. A blower is provided to supply air for mixing in the sludge tank. Mixing requirement is based on 25 scfm/1000 cf of tank volume in accordance with the NEIWPCC design guidance manual. Wastewater sludge will be delivered to the tank over a short duration at the end of each SBR cycle. The SHT is equipped with redundant level monitoring. Provisions are included for polymer addition for promoting improved settling characteristics. Post-settling provisions are included for decanting wastewater from above the sludge blanket and recycling the wastewater back to the SBRs. The SHT headspace is vented to the Odor Control Scrubber.

4.6. Centrifuge

Wastewater sludge will be pumped from the SHT using redundant positive displacement rotary lobe pumps, and following conditioning of the sludge with a polymer solution, dewatering of the waste sludge is performed using a solid bowl Centrifuge. The Centrifuge capacity is designed to

accommodate the Design Average waste sludge generation rate at a runtime of < 4hr/day on a 5days/wk operation basis. The dewatered sludge cake will be gravity discharged from the Centrifuge into a roll-off container for off-site disposal.

The centrate will be discharged via gravity into a 500-gallon Centrate tank for recycle back to the SBRs with an alternate routing to the post-SBR EQ tank. The Centrate tank will be equipped with redundant level monitoring and discharge pumps. Tank ventilation will be connected to the Odor Control Scrubber.

The Centrifuge will be located within the Control Building on a mezzanine (upper) level above the roll-off container. A floor drain will be provided to direct washdowns in the Centrifuge area to the Centrate tank on the floor below.

Floor washings from the first floor Centrate tank and sludge rolloff area will be collected in a local sump and pumped via redundant pneumatic pumps to the Centrate tank, for conveyance to the EQ tanks or SBRs.

The roll-off container headspace and centrate discharge assembly headspace will be vented to the Odor Control Scrubber.

4.7. Odor Control

Vent off-gas is routed from various areas of the WWpTP to a two-stage outdoor Odor Control Scrubber prior to discharge to atmosphere via a free standing discharge stack. The two stage induced draft packed columns are equipped with redundant recirculation pumps and a pair of induced draft fans. These fans are located to at the downstream of the 2nd stage column and upstream of the discharge stack. The odor control scrubber ductwork is configured to operate either column as a single stage if required for major maintenance.

During normal operation the 1st stage column oxidation reduction potential (ORP) and pH will be controlled by dosing hypochlorite and caustic. The 2nd stage column will adjust the final pH using caustic.

Each column is equipped with level monitoring, redundant pH, ORP, and conductivity monitoring that is located in each column sump. Caustic and hypochlorite chemical dosing is injected into each respective recirculation pump discharge header. Scrubber recirculation flow rate is continuously monitored. Sump liquid level is maintained by operation of an on/off solenoid controlled via high/low level switches. Each column is equipped with a sump heater and thermostat monitoring for anti-freezing protection.

Scrubbed fume flow discharges via a free standing discharge stack equipped with mist-eliminator. A portion of the recirculated scrubber liquor is conveyed to the WWpTP tanks to control the TDS.

4.8. Chemical Distribution

Bulk unloading and chemical storage systems are designed to be in substantial compliance with the New York State Chemical Bulk Storage Regulations. Bulk unloading of chemicals and tote delivery will be performed inside the building. The chemicals used at the WWpTP include the following:

- 37% ferric chloride

- 25% caustic
- 15% sodium hypochlorite
- 32% hydrochloric acid
- anti-foam
- neat and dilute polymer
- urea
- cooling tower chemicals
- diesel fuel

Ferric chloride, caustic, hydrochloric acid, and sodium hypochlorite are stored in 5,000-gallon storage tanks inside the Control Building. Each tank is equipped with level monitoring and redundant high level alarm (via level switch) to provide notification at 90% and 95% of tank level for operator intervention. Each respective chemical is stored within its own containment with sump and spill monitoring. Each are provided with dedicated metering pumps for respective usage points. The chemical metering pumps are cross connected to provide redundancy.

Urea, anti-foam, and polymer will be delivered in tote quantities. Each permanent tote is equipped with level monitoring and alarming functionality. Chemical distribution from each tote will be conveyed via dedicated metering pumps to each respective usage point, and will be cross connected for redundancy.

The neat polymer and antifoam each are provided with a 1000-gallon and 600-gallon make-down tank, respectively. Each make-down tank will be equipped with tank mixers and level monitoring. Polymer and anti-foam make down will be performed using a drum pump. Polymer, urea and anti-foam will be located within the Chemical/Process Room inside the Control Building.

Space within the Control Building has been allocated (if required) for miscellaneous cooling tower chemicals. 55-gallon translucent drums with dedicated metering pumps will be manually operated.

The Standby Generator will house a double contained diesel fuel tank. Fuel for the outdoor generator will be unloaded within the Control Building. The diesel storage tank will be equipped with level monitoring and alarm functionality at the unloading area for operator notification and intervention at high and high-high alarms.

